WHAT IS CLAIMED IS:

1. A mobile communication system comprising a mobile station and a plurality of base stations,

wherein the mobile station comprises:

cell selection reference receiving means for, on the occasion of a handover from a first base station to a second base station as a base station for the mobile station to be connected, receiving a first cell selection reference signal from the first base station and a second cell selection reference signal from the second base station out of cell selection reference signals broadcasted by the respective base stations, each cell selection reference signal containing identification information for identification of a base station and a cell established by the base station;

cell selection reference received power measuring means for measuring received power values of the first and second cell selection reference signals received by the cell selection reference receiving means;

uplink transmitted power acquiring means for acquiring a first uplink transmitted power value and a second uplink transmitted power value, which are transmitted powers of respective uplinks from the mobile station to the first base station and to the second base station; and

cell control information transmitting means for transmitting to the first base station, first cell control information based on at least the received power value of the first cell selection reference signal, the first and second uplink transmitted power values, and the first identification information included in the first cell selection reference signal, and for transmitting to the second base station, second cell control information based on at least the received power value of the second cell selection reference signal, the first and second uplink transmitted power values, and the second identification information included in the second cell selection reference signal; and

wherein each of the base stations comprises:

cell selection reference broadcasting means for broadcasting the cell selection reference signal; and

cell controlling means for acquiring the cell control information transmitted to the relevant base station by the cell control information transmitting means of the mobile station and for, based on the cell control information, controlling a power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information, so that the first and second uplink transmitted power values become substantially equal and so that a received power value at the mobile station of the cell selection reference signal broadcasted by the relevant base station becomes substantially equal to a predetermined reference power value.

2. A base station in a mobile communication system, comprising:

cell selection reference broadcasting means for broadcasting a cell selection reference signal containing identification information for identification of the base station and a cell established by the base station; and

cell controlling means configured as follows: in the case of said base station being one of a first base station and a second base station for a mobile station to be connected before and after a handover, the cell controlling means acquires one cell control information out of first cell control information transmitted to the first base station by the mobile station on the basis of at least a received power value at the mobile station of the cell selection reference signal broadcasted by the first base station, first and second uplink transmitted power values from the mobile station to the first base station and to the second base station, and first identification information in the first cell selection reference signal, and second cell control information transmitted to the second base station by the mobile station on the basis of at least a received power value at the mobile station of the cell selection reference signal broadcasted by the second base station, the first and second uplink transmitted power values, and second identification information in the second cell selection reference signal; and the cell controlling means controls a power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the one cell control information, so that the first and second uplink transmitted power values become substantially equal and so that the received power value at the mobile station of the cell selection reference signal broadcasted by the relevant base station becomes substantially equal to a predetermined reference power value, based on the one cell control information.

3. The base station according to Claim 2, said base station establishing a plurality of cells, and

wherein the cell selection reference broadcasting means of said base station broadcasts into each cell established by said base station, the cell selection reference signal containing the identification information with a base station identifier for identification of the base station and a cell identifier for identification of the cell.

4. The base station according to Claim 2, wherein, in the case of said base station being one of the first and second base stations, the cell controlling means acquires one cell control information out of the first cell control information containing the received power value of the first cell selection reference signal, the first and second uplink transmitted power values, and the first identification information and transmitted to the first base station by the mobile station, and the second cell control information containing the received power value of the second cell selection reference signal, the first and second uplink transmitted power values, and the second identification information and transmitted to the second base station by the mobile station.

5. The base station according to Claim 4, wherein the cell controlling means is configured as follows: in the case of said base station being one of the first and second base stations, based on the cell control information transmitted by the mobile station,

the cell controlling means decreases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information when it is determined that the uplink transmitted power value to the relevant base station out of the first and second uplink transmitted power values is larger than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is larger than the predetermined reference power value; and

the cell controlling means increases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information when it is determined that the uplink transmitted power value to the relevant base station out of the first and second uplink transmitted power values is smaller than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is not more than the predetermined reference power value.

6. The base station according to Claim 2, wherein the cell controlling means acquires one cell control information out of the first cell control information containing a first received power value difference being a difference between the predetermined reference power value and the received power value of the first cell selection reference signal, a transmitted power value difference about a difference between the first uplink transmitted power value and the second uplink transmitted power value, and the first identification information and transmitted to the first base station by the mobile station, and the second cell control information containing a second received power value difference being a difference between the predetermined reference power value and the received power value of the second cell selection reference signal, the transmitted power value difference, and the second identification information and transmitted to the second base station by the mobile station.

7. The base station according to Claim 6, wherein the cell controlling means is configured as follows:

in the case of said base station being one of the first and second base stations, the cell controlling means acquires the cell control information transmitted by the cell control information transmitting means of the mobile station;

when it is determined that the uplink transmitted power value to the relevant base station is larger than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values, based on the transmitted power value difference in the cell control information, and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is larger than the predetermined reference power value, based on the received power value difference in the cell control information, the cell controlling means decreases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information; and

when it is determined that the uplink transmitted power value to the relevant base station is smaller than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values, based on the transmitted power value difference in the cell control information, and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is not more than the predetermined reference power value, based on the received power value difference in the cell control information, the cell controlling means increases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information.

8. The base station according to Claim 2, wherein the cell controlling means acquires one cell control information out of the first cell control information containing a first received power value ratio being a ratio between the predetermined reference power value and the received power value of the first cell selection reference signal, a transmitted power value ratio about a ratio between the first uplink transmitted power value and the second uplink transmitted power value, and the first identification information and transmitted to the first base station by the mobile station, and the second cell control information containing a second received power value

ratio being a ratio between the predetermined reference power value and the received power value of the second cell selection reference signal, the transmitted power value ratio, and the second identification information and transmitted to the second base station by the mobile station.

9. The base station according to Claim 8, wherein the cell controlling means is configured as follows:

in the case of said base station being one of the first and second base stations, the cell controlling means acquires the cell control information transmitted by the cell control information transmitting means of the mobile station;

when it is determined that the uplink transmitted power value to the relevant base station is larger than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values, based on the transmitted power value ratio in the cell control information, and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is larger than the predetermined reference power value, based on the received power value ratio in the cell control information, the cell controlling means decreases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information; and

when it is determined that the uplink transmitted power value to the relevant base station is smaller than the uplink transmitted power value to the other base station out of the first and second uplink transmitted power values, based on the transmitted power value ratio in the cell control information, and that the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is not more than the predetermined reference power value, based on the received power value ratio in the cell control information, the cell controlling means increases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information.

10. The base station according to Claim 2, wherein the cell controlling means is configured as follows:

when said base station is one of the first and second base stations, when the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is larger than the predetermined reference power value, and when the uplink transmitted power value from the mobile station to the relevant base station is larger than the uplink transmitted power value to the other base station out of the first and second base stations, the cell controlling means acquires the cell control information transmitted by the mobile station and containing cell change information for demanding a decrease in a size of the cell established by the relevant base station specified by the identification information in the cell selection reference signal transmitted by the relevant base station, and the identification information in the cell selection reference signal transmitted by the relevant base station;

when the relevant base station is one of the first and second base stations, when the received power value at the mobile station of the cell selection reference signal transmitted by the relevant base station is smaller than the predetermined reference power value, and when the uplink transmitted power value from the mobile station to the relevant base station is not more than the uplink transmitted power value to the other base station out of the first and second base stations, the cell controlling means acquires the cell control information transmitted by the mobile station and containing cell change information for demanding an increase in the size of the cell established by the relevant base station specified by the identification information in the cell selection reference signal transmitted by the relevant base station, and the identification information in the cell selection reference signal transmitted by the relevant base station; and

when the cell change information in the cell control information is one for demanding a decrease in the size of the cell, the cell controlling means decreases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information; and when the cell change information in the cell control information is one for demanding an increase in the size of the cell, the cell controlling means increases by a predetermined amount the power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information.

11. A mobile station in a mobile communication system comprising a plurality of base stations, the mobile station comprising:

cell selection reference receiving means for, on the occasion of a handover from a first base station to a second base station as a base station for the mobile station to be connected, receiving a first cell selection reference signal from the first base station and a second cell selection reference signal from the second base station out of cell selection reference signals broadcasted by the respective base stations, each cell selection reference signal containing identification information for identification of a base station and a cell established by the base station;

cell selection reference received power measuring means for measuring received power values of the first and second cell selection reference signals received by the cell selection reference receiving means;

uplink transmitted power acquiring means for acquiring a first uplink transmitted power value and a second uplink transmitted power value, which are transmitted powers of respective uplinks from the mobile station to the first base station and to the second base station; and

cell control information transmitting means for transmitting to the first base station, first cell control information based on at least the received power value of the first cell selection reference signal, the first and second uplink transmitted power values, and the first identification information included in the first cell selection reference signal, and for transmitting to the second base station, second cell control information based on at least the received power value of the second cell selection reference signal, the first and second uplink transmitted power values, and the second identification information included in the second cell selection reference signal.

12. The mobile station according to Claim 11, wherein the cell control information transmitting means transmits to the first base station the first cell control information containing the received power value of the first cell selection reference signal, the first and second uplink transmitted power values, and the first identification information and transmits to the second base station the second cell control information containing the received power value of the second cell selection reference signal, the first and second uplink transmitted power values, and the second identification information.

13. The mobile station according to Claim 11, wherein the cell control information transmitting means transmits to the first base station the first cell control information containing a first received power value difference being a difference between the predetermined reference power value and the received power value of the first cell selection reference signal, a transmitted power value difference about a difference between the first uplink transmitted power value and the second uplink transmitted power value, and the first identification information, and transmits to the second base station the second cell control information containing a second received power value difference being a difference between the predetermined reference power value and the received power value of the second cell selection reference signal, the transmitted power value difference, and the second identification information.

14. The mobile station according to Claim 11, wherein the cell control information transmitting means transmits to the first base station the first cell control information containing a first received power value ratio being a ratio between the predetermined reference power value and the received power value of the first cell selection reference signal, a transmitted power value ratio about a ratio between the

first uplink transmitted power value and the second uplink transmitted power value, and the first identification information, and transmits to the second base station the second cell control information containing a second received power value ratio being a ratio between the predetermined reference power value and the received power value of the second cell selection reference signal, the transmitted power value ratio, and the second identification information.

15. The mobile station according to Claim 11, wherein the cell control information transmitting means is configured as follows:

when the received power value of the cell selection reference signal transmitted by one base station out of the first base station and the second base station is larger than the predetermined reference power value and when the uplink transmitted power value to the one base station is larger than the uplink transmitted power value to the other base station out of the first base station and the second base station, the cell control information transmitting means transmits to the one base station the cell control information in which the identification information in the cell selection reference signal transmitted by the one base station is correlated with cell change information for demanding a decrease in a size of the cell established by the one base station specified by the identification information in the cell selection reference signal transmitted by the one base station; and

when the received power value of the cell selection reference signal transmitted by the one base station is smaller than the predetermined reference power value and when the uplink transmitted power value to the one base station is not more than the uplink transmitted power value to the other base station, the cell control information transmitting means transmits to the one base station the cell control information in which the identification information in the cell selection reference signal transmitted by the one base station is correlated with cell change information for demanding an increase in the size of the cell established by the one base station specified by the identification information in the cell selection reference signal transmitted by the one base station.

16. A cell control method of controlling cells established by respective base stations, the cell control method comprising:

a cell selection reference broadcasting step wherein cell selection reference broadcasting means of each of the base stations broadcasts a cell selection reference signal containing identification information for identification of the base station and a cell established by the base station;

a cell selection reference signal receiving step wherein, on the occasion of a handover from a first base station to a second base station as a base station for a mobile station to be connected, cell selection reference receiving means of the mobile station receives a first cell selection reference signal from the first base station and a second cell selection reference signal from the second base station out of the cell selection reference signals broadcasted by the respective base stations;

a cell selection reference received power measuring step wherein cell selection reference received power measuring means of the mobile station measures received power values of the first and second cell selection reference signals received by the cell selection reference receiving means;

an uplink transmitted power acquiring step wherein uplink transmitted power acquiring means of the mobile station acquires a first uplink transmitted power value and a second uplink transmitted power value, which are transmitted powers of respective uplinks from the mobile station to the first base station and to the second base station;

a cell control information transmitting step wherein cell control information transmitting means of the mobile station transmits to the first base station, first cell control information based on at least the received power value of the first cell selection reference signal, the first and second uplink transmitted power values, and the first identification information included in the first cell selection reference signal, and transmits to the second base station, second cell control information based on at least the received power value of the second cell selection reference signal, the first and second uplink transmitted power values, and the second identification information included in the second cell selection reference signal; and

a cell control step wherein cell controlling means of each of the base stations acquires the cell control information transmitted to the relevant base station by the cell control information transmitting means of the mobile station and, based on the cell control information, controls a power of the cell selection reference signal broadcasted by the cell selection reference broadcasting means into the cell established by the relevant base station specified by the identification information in the cell control information, so that the first and second uplink transmitted power values become substantially equal and so that a received power value at the mobile station of the cell selection reference signal broadcasted by the relevant base station becomes substantially equal to a predetermined reference power value.